PALMETTO AVIATION

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After 43 Years of Service Sammie Howard Turns In His Truck

At 12:20 p.m. June 28, Sammie Howard officially retired after 42 years with the state Aeronautics Commission. About 20 employees, friends and relatives gathered for a chance to say good-bye to a man who began working at the commission when he was 21.

Commission Chairman Jim Hamilton praised Sammie for his perseverance, "I have mixed emotions at a time like this. It's like a family reunion when we all get together."

Howard became a little teary-eyed when Hamilton presented him with an engraved gold watch and a plaque from employees. "I'll miss ya'll. I'll be missing my family."

Sammie had some advise for others working today, "Stay with what you've got. If the job gets rough...every job gets rough sometimes...stay with it. It'll pay off in the long run. I know mine paid off. I have no complaints staying with the Aeronautics Commission."

After June 28, you can catch Sammie in his workshop building or designing on a wood working project, ""I'll do some wood working. I like to work with my hands. I'll see a lot more of Eloise, my wife, and my daughter, Karen."

When Howard began working at the Aeronautics Commission he started a career that would span more than four decades.

He attributed his longevity to being proud of his work and enjoying it, ""I had no complaints. I got along good with everybody. I liked everybody I worked with. And they paid me on time every time."

Howard, a 65-year-old native of

See Howard's Retirment, Page 6

On his last day, Sammie Howard (l) graciously accepted a plaque, an engraved gold watch and a homemade cake from employees celebrating his retirement.

Do you have some WWII memories to loan to the State Museum?

The State Museum is looking for all types of items for a new exhibit they are creating about World War II.

Fritz Hamer, curator of history at the State Museum, said he is primarily interested in items from South Carolina or things which were sent to South Carolinians for an exhibit about the WWII and the Home Front. He said because the Civil Air Patrol was a vital link during WWII protecting the home front, information and paraphernallia from that era is essential.

Hamer said he wants information, photographs and artifacts about the CAP during the war, particu-

See Memories on Loan, Page 6

PALMETTO AVIATION is an official publication of the South Carolina Aeronautics Commission. It is designed to inform members of the aviation community, and others interested in aviation, of local developments in aviation and aviation facilities, and to keep readers abreast of national and international trends in aviation.
The Aeronautics Commission is a state agency created in 1935 by the South Carolina General Assembly to foster and promote air commerce in the state.

It's time to reunite with Southern Aviation

Calling all cadets from Southern Aviation School! If you like reunions, there's one you won't want to miss.

A reunion of all cadets and employees from 1941 to 1945 of the Southern Aviation School in Camden, S.C. is scheduled for September 6-8 at Woodward Field.

If you know the names and addresses of any of those who attended or taught at the school, please call Bill Hawkins at (803) 432-9595, or send him the information by mail at P.O. Box 789, Camden, SC 29020.

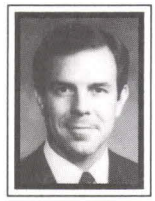
Hawkins said there were some British cadets during this period and some of them plan to attend the reunion.

Loan your WWII memories to the State Museum

If you would like to loan items or submit an oral history to the State Museum, please call or write to Fritz Hamer, curator of History, State Museum, P.O. Box 100107, Columbia, S.C. 29202-3107, or call him at (803) 737-4921.

Stevens Aviation Announces New Executive Director

Stevens Aviation has announced the appointment of Steve Townes as their new executive director.



Townes

With its wings pointed toward expansion and growth Stevens Aviation announced the appointment of the Greenville, S.C. resident.

Townes, 39, an engineering graduate of West Point, was previously vice president of Programs and Business Development at the Dee Howard Co., one of the largest aircraft modification companies in the United States.

Townes' appointment as executive vice president is part of Stevens' expansion strategies, including growth in the company's modifications business segments at several of its locations.

Founded over forty years ago, Stevens Aviation has long been a high-quality force in the aviation industry. Operating from substantial facitlies in five major cities, Stevens is well-known for its aircraft modifications and maintenance.

South Carolina Aeronautics Commission Offices are at Columbia Metropolitan Airport. **Mailing Address:** Post Office Drawer 280068, Columbia, South Carolina, 29228. **Phone:** (803) 822-5400, or 1-800-922-0574.

Dr. Donald Small of S.C. State (standing), presents a proposed Aeronautical Science curriculum to the SCAC Commissioners.

SCAC Meeting Held in Claflin

Aeronautical Science Degree proposed & two airport projects approved

Commissioners of the S.C. Aeronautics Commission held their monthly meeting at Claflin College in Orangeburg where a new program for aeronautical science was unvielled.

Dr. Donald Small of S.C. State College announced a joint partnership with the Orangeburg Municipal Airport and S.C. State to form a baccalaureate program in aviation technology.

Dr. Small presented the proposed curriculum to the commissioners who were interested in aviation education in the state.

During the regular monthly meeting commissioners also voted to approve two airport improvement projects, in Florence and Pickens.

The State Aeronautics Commission approved more than $75,000 for airport projects during the June 19 meeting.

When completed, the projects will generate almost $150,000 when combined with local and federal funding.

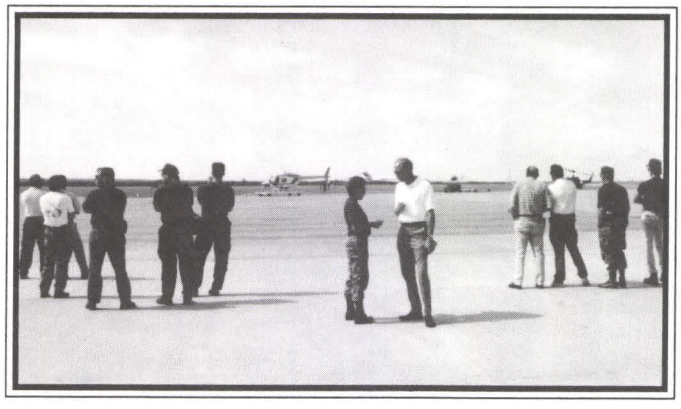
Commission Vice Chairman Olin Phillips announced the state allocations:

Florence Regional Airport — $62,190 to sterilize, clean and seal pavement cracks on runway 9/27;

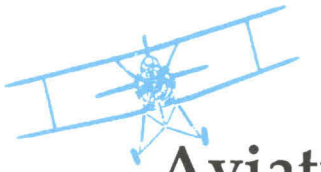
Pickens County Airport — $12,610 to repair runway and taxiway, and to sealcoat existing apron with coal tar emulsion.

Both the Florence Regional Airport project and the Pickens County Airport project are funded with a 50 percent state grant and 50 percent local funds.

Governor's Drug Eradication Team Completes Aerial Training



Members of SLED, SC Air National Guard, and the Drug Enforcement Administration combined efforts to complete aerial training in marijuana eradication recently in Columbia.



Aviation Calendar

July 1-7
Freedom Weekend Aloft
Hot Air Balloons
Donaldson Center

July 7
Breakfast Club
Advantage Aviation
Donaldson Center

July 14
Breakfast Club
Greenwood County Airport

July 17 -21
Dayton International Airshow
Wright Patterson AFB
Dayton, Ohio

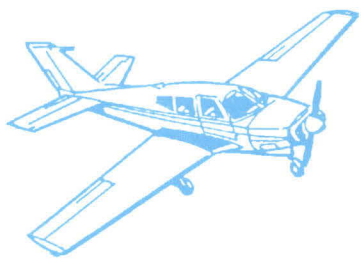
July 21
Breakfast Club
Spartanburg Downtown Airport

July 26 - August 1
Oshkosh '91
Oshkosh, WI

August 4
Breakfast Club
Thompson McDuffie
Thompson, GA

August 25
Breakfast Club
Shiflet Field
Marion, NC

September 1
Jefferson Flying Club
Louisville, GA



Local Students Get a Jump-Start

Paul Fitzgerald said it was the best thing he'd done in years; Steven Skidmore said it was a great opportunity and Pondra O'Neal said it was just fun. Those are just three opinions of a new aviation internship program set up by the state Aeronautics Commission.

The Aviation Summer Youth Program is a new concept in educating and recruiting teenagers into the field of aviation who for years have opted for other career choices creating a void of well-trained personnel for many aviation jobs.

Eleven high school students with aspirations of careers in aviation have begun the six-week internship designed by the South Carolina Aeronautics Commission.

The six-week program is a paid internship with local aviation businesses sponsoring students. Students get a hands-on approach to aviation and a classroom style introduction to a field many have not been exposed to.

The first week is designated for basic instruction into the field of aeronautics with a fresh approach.

In the first week students were exposed to a number of aviation subjects, so they could explore different careers and learn things not taught in high schools. Among other things, students learned about the nation's air transportation system and how it operates through the FAA. Students later toured the air traffic control tower and watched the progression of filing flight plans to take off. Most students were amazed at the perspective of the tower and how much activity there was at Columbia Metropolitan Airport.

1991 Aviation Interns are (l-r) Paul Fitzgerald, Steven Skidmore, Robert McKnight, Malika Jones, Pondra O'Neal, Wade Downing, Joey Koon, Kace Grogan, Kent Parsons, Jennifer Erskine and Robbie Malpass.

During the week participants listened to state pilots as they told their job duties and the experience needed to gain successful employment as a pilot.

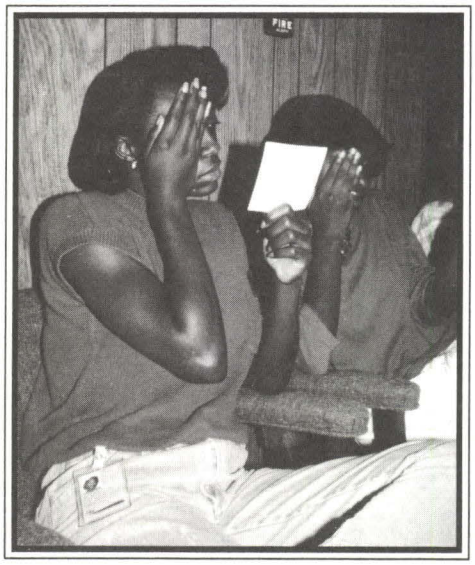
Crash, Fire and Rescue is another integral part of aviation safety that participants learned more about through a CFR demonstration by Columbia Metro Capt. Freddie Mullis.

Students learned basic aerodynamics, and then took an introductory flight in a helicopter and an airplane.

After the first week of the internship, each student was assigned to a particular business at the airport where they will learn more about the day-to-day operations of aviation.

Employers were asked to let the students experience as much of their business as possible so they could get a good idea of what to expect in the real world of aviation.

At American Airlines, Malika Jones, senior at Airport High



At left, interns learned how eyes can be tricked with optical illusions.

Students observed a high altitude simulation at Shaw Air Force Base (r) and later toured the chamber.

in Aviation Through Summer Program

School, is learning the computer system to assign passengers boarding passes. She has also loaded bags, and assisted passengers needing help on or off their planes.

Robbie Malpass, a 17-year-old senior at B-C High School, said he likes the challenge of line service at Columbia Owens Downtown and is looking forward to assisting in aircraft maintenance.

Kent Parsons, a senior at B-C said, "I've enjoyed learning about aviation, not the glory jobs, like pilot. Aviation is a lot of work, but it's fun."

Paul Fitzgerald, a 16-year-old junior at Lower Richland High School, said he likes all of aviation, "But flying is the most fun."

Pondra O'Neal of Airport High School, said before the program she thought aviation would be fun, but now she has aspirations of an aviation career, possibly in air traffic control.

Parsons, Fitzgerald and O'Neal are all assigned to the Aeronautics Commission where they will spend time in airport development, aircraft maintenance and administration.

Joey Koon and Jennifer Erskine are both at Columbia Metropolitan Airport where they are learning about how air carrier airports operate. Koon is a senior at B-C while Erskine is at Airport High School.

Eagle Aviation has Robert McKnight, a 19-year-old Airport High School graduate, who is learning about their aircraft maintenance department, parts department and line service. He is planning to continue his education and earn an A&P license.

Wade Downing is also interested in aircraft maintenance. He is an Airport High School senior working with Nettie Dickerson at Columbia Aviation on line service.

Interns learned the importance of a highly trained crash fire and rescue team by Capt. Fred Mullis at Columbia Metro during their internship.

Steven Skidmore and Kace Grogan are both working at the FAA FSDO.

Skidmore is a junior at Lower Richland High School seeking a career in aviation with an emphasis on computers, his main love. "I want something to do with computers and aviation, but I don't know what."

Grogan goes to B-C High School and is interested in pursuing an aviation career possibly as a pilot, "I really liked flying in the airplane and the helicopter. It was wonderful."

The Columbia-area high school students were selected on the basis of interest in aviation as a possible career goal, by referral from high school counselors and grades.

The program is designed so that both vocational and college prepatory students can apply for the chance to learn more about aviation.

This first batch of students included five students who had vocational training and six students involved in the college prepatory track.

Aviation businesses participating include: American Airlines, Columbia Metropolitan Airport, Columbia Avation, Eagle Aviation, Midlands Aviation, the Federal Aviation Administration Flight Standards District Office and the Aeronautics Commission.

Below, Pondra O'Neal and Malika Jones (r) get a chance to relax inside the S.C. Development Board's Lear Jet.

Although no time table has been established, the Aeronautics Commission is planning to expand the Summer Youth Program to include all air carrier airports and commuter service airports in the state making this program accessible to students around the Greeville-Spartanburg Airport, Charleston International, Florence Regional, Hilton Head Airport, Myrtle Beach Jetport and Columbia Metropolitan Airport.

Howard's Retirement Leaves Void at SCAC

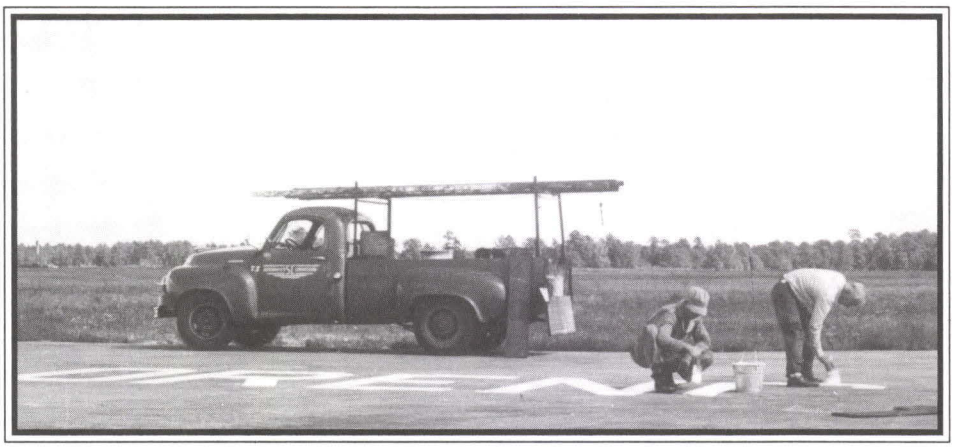
Continued from Page 1

Florence, began his career in 1948 as an airport maintenance worker building and maintaining the state's airport system in his hometown.

In 1948, South Carolina was a much different state, Howard said, the motels he stayed in did not have air conditioning and cost about $3 a night.

"It cost about $5 a day to travel and that was to eat and sleep," he said.

During that time, Pepsi cost around a nickel and gasoline was 15 cents a gallon. Howard travelled around the Florence area cutting grass, installing lights and doing general maintenance around the county airports which the state kept operational.



Above, when Howard began working in 1948 runway lines were painted by hand.
At right, Howard received a cake with a runway on it.
Beginning at left, the four amigos who all worked at SCAC together -- Robert Gates, Dan Reeves, Lester Smith and Sammie at Howard's retirement.

When Howard began the state's airway system was not much more than a series of grass and dirt strips connecting open fields to farm lands and any airplane that landed was greeted by curious neighbors and excited youngsters.

At the end of June, Howard, an airport craftsman stationed in Florence, will leave the Aeronautics Commission and retire after 42 years of steady service to state.

In his 42 years, Howard has seen J-3 Cubs puddle-jump over the state's grass strips; seen the invention of helicopters and seen modern jets land on runways which are a mile long.

Howard ended his career this week with just enough hoopla and fanfare. Where his friends for more than four decades wished him good luck and good health.

WWII Memories to Loan the State Museum

Continued from Page 1

larly during the first two years when the CAP was used in anti-submarine observations and ship rescues.

Hamer is especially interested in —

• Any CAP uniforms worn during that time,

• Any equipment used by pilots to search for submarines, i.e. binoculars,

• Any photographs of CAP planes and their pilots and any aerial photos taken at that time period,

• Any other related equipment, signs, insignia, etc. which are related to the patrol during the war years.

Hamer also indicated that the museum would like to gather any histories from former pilots or their relatives about their experiences during the war.

All former CAP members are urged to look through their attics, closets and boxes pushed under their beds for these items. Here is your chance to contribute to the State Museum and make history come alive for hundreds of South Carolinians.

FYI From the FAA

Improving Preflight Habits Increases Your Safety

Proper preflight planning is as essential to the safety of the flight and pilot as a well executed takeoff and landing. Aircraft accident statistics prove that a thorough preflight can actually reduce your probability of having an incident. Although the number of general aviation accidents has shown a downward trend in recent years, the accident and fatality/serious injury statistics indicate an increase in the percentage of accidents during takeoff.

The following information is taken from an FAA Advisory Circular No. 61-84B which updates information available to pilots in the basic Airmen Informational Manual.

This is the next part in the series on Preflight Planning.

Key Elements During Takeoff Phase. The importance of thorough preflight preparation which considered possible hazards to takeoff cannot be over-emphasized. The following elements, which should be carefully considered, continue to emerge as factors in takeoff accidents:

Balance —A pilot must not only determine the takeoff weight fo the aircraft, but also must assure that the load is arranged to fall within the allowable CG limits for the aircraft. Each aircraft manual provides instructions on the proper method for determining if the aircraft laoding meets balance requirements.

The pilot should routinely determine the balance of the aircraft since it is possible to be within the gross weight limits and still exceed the CG limits.

• An airplane which exceeds the forward CG limits places heavy loads on the nosewheel and, in conventional landing gear airplanes, may, during braking, cause an uncontrollable condition. Furthermore, performance may be significantly decreases and the stall speed may be much higher.

• An airplane loaded in a manner that the CG exceeds the aft limit will have decreased static and dynamic longitudinal stability. This condition can produce sudden and violent stall characteristics and can seriously affect recovery.

• Pilots exceeding CG limits in helicopters may experience insufficient cyclic controls to safely control the helicopter. This can be extremely critical while hovering downwind with the helicopter load exceeding the forward CG limit.

Ice and Frost-- Ice or frost can affect the takeoff performance of an aircraft significantly. Pilots should never attempt takeoffs with any accumulation of ice or frost on their aircraft. Most pilots are aware of the hazards of ice on the wings. The effects of a hard frost are much more subtle. This is due to an increased roughness of the surface texture of the upper wing and may cause up to a 10 percent increase in the airplane stall speed.

• Once airborne, the airplane could have an insufficient margin of airspeed above stall such that gusts or turning of the aircraft could result in a stall. Accumulation of ice or frost on helicopter rotor blades results in potential rotor blade stalls at slower forward air speeds. It could also result in an unbalanced rotor blade condition which could cause an uncontrollable vibration.

Density Altitude --Aircraft instruments are calibrated to be correct under one set of conditions. Standards conditions represent theoretical sea level condition, 59 degrees Fahrenheit and 29.92 in Hg. As higher elevations are reached, both temperature and pressure normally decrease. Thus, density altitude is determined by compensating for pressure and temperature variances from the standard conditions. A pilot must remember that as density altitude increases, there is a corresponding decrease in the power delivered by the engine and the propellers or rotor blades. For airplanes, this may cause the required takeoff roll to increase by up to 25 percent for every 1,000 feet of elevation above sea level. The most critical conditions of takeoff performance are the result of a combination of heavy loads, unfavorable runway conditions, winds, high temperatures, high airport elevations, and high humidity.

Effect of wind -- Every aircraft manual gives representative wind data and corresponding ground roll distances. A headwind which is 10 percent of the takeoff airspeed will reduce the no-wind takeoff distance by 19 percent. A tailwind which is 10 percent of the takeoff airspeed, however, will increase the no-wind takeoff distance by about 21 percent.

Runway Conditions -- There are more than 14,700 airports in the United States, each with runways having various surface compositions, slopes, and degrees of roughness. Takeoff acceleration is affected directly by the runway surface condition and, as a result, it must be a primary consideration during preflight planning.

Most aircraft manuals list takeoff data for level, dry, hard-surfaced runways. The runway to be used, however, is not always hard-surfaced and level. Consequently, pilots must be aware of the effect of the slope or gradient of the runway, the composition of the runway, and the condition of its surface. Each of these can contribute to a failure to obtain/maintain a safe flying speed.

Cold Weather Takeoffs— Takeoffs in cold weather offer some distinct advantages, but they also offer special problems. A few points to remember are: -- Do not overboost supercharged or turbine engines. Use the applicable power charts for the pressure altitude and ambient temperature to determine the appropriate manifold pressure or engine pressure ratio. Care should be exercised in operating normally aspirated engines. Power output increases at about 1 percent for each ten degrees of temperature below that of standard air. At -40 degrees F, an engine might develop 10 percent more than rated power though RPM and MP limits are not exceeded.

On multiengine aircraft it must be remembered that the critical engine-out minimum control speed (Vmc) was determined at sea level with a standard day temperature. Therefore, Vmc will be higher than the published figure during a cold weather takeoff unless the power setting is adjusted to compensate for the lower density altitude.

If icing conditions exist, use the anti-ice and deice equipment as outlined in the Airplane Flight Manual. If the aircraft is turbined powered, use the appropriate power charts for the condition, bearing in mind the use of bleed air will, in most cases, affect the aircraft's performance.

According to William T. Brennan, Acting Director of Flight Operations, good preflight habits need to be continually reviewed, along with being knowledgeable of the hazards and conditions which would represent potential dangers.

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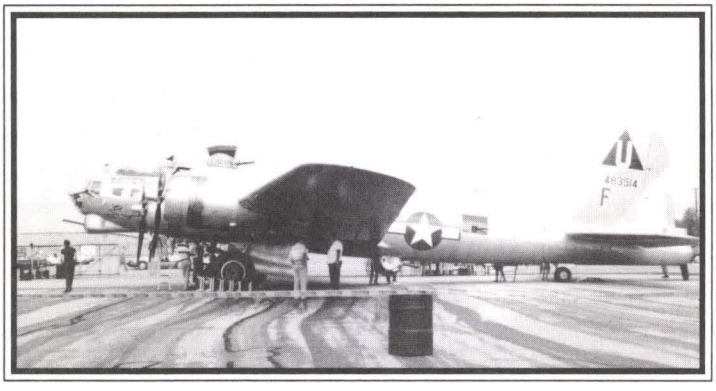
This Month. . .

Inside Palmetto Aviation

...and much much more!

Sentimental Journey Conjures Up Memories and History



The Sentimental Journey, a restored B-17, recently visited Eagle Aviation at the Columbia Metropolitan Airport where hundreds of people revived World War II memories. The Confederate Air Force airplane gave many veterans a chance to compare notes and war stories. In addition, the flying museum gives people the opportunity to learn first hand about historic events that shaped the world.

This publication is printed and distributed by the South Carolina Aeronautics Commission in the interest of aviation safety and to foster growth of responsible aviation in the state. The viewpoints expressed in articles credited to specific sources are presented as the viewpoints of those writers and do not necessarily reflect the opinion of the South Carolina Aeronautics Commission.